

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Thomas Genger et al.

Application No.: 10/525,468

Confirmation No.: 3829

Filed: February 24, 2005

Art Unit: 1621

For: OXIDATION PROCESS

Examiner: R. A. Keys

REPLY BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

In response to the Examiner's Answer, dated May 27, 2009, in the above-referenced application on appeal ("the Answer"), Appellants submit herewith a Reply Brief. This Reply Brief is being timely filed, within two months of the mailing date of the Answer, on or before July 27, 2009.

Appellants respectfully request that the Board of Patent Appeals and Interferences, before making its decision on this appeal, consider the following rebuttal to a statement made in the Answer, as set forth below in detail.

REMARKS

Appellants respectfully disagree with all of the Examiner's arguments and contentions advanced in the Answer, for at least those reasons originally set forth in Appellants' Brief on Appeal. In this Reply Brief, Appellants highlight for the Honorable Board one specific item from the Answer which Appellants feel is most in error.

REBUTTAL ARGUMENT

Appellants specifically traverse the following statement and argument made by the Examiner and offer the following rebuttal in support of said traversal.

In the Answer, the Examiner states:

“[T]his submission should not be persuasive because if the intended purpose of Ciborowski is to eliminate any need to separate the condensate obtained by liquefaction of the vapors, making it possible to avoid losses of cyclohexane associated with such separation, then the use of the Luebke apparatus would allow Ciborowski to fulfill its intended purpose, since the cyclohexane and water vapor of Ciborowski would not be liquefied in the apparatus of Luebke.”

Page 8 of the Answer. Appellants respectfully submit that this statement misconstrues both Appellants' argument and the teaching of Ciborowski.

Ciborowski teaches that known methods of distilling off chemical substances in an economical manner exist in the art, but that these known methods have several disadvantages. Column 1, lines 28-30 of Ciborowski. One such method specifically discussed in Ciborowski involves compressing vapors of distilled substances by means of an injector using high pressure steam and subsequently condensing this vapor in the heating coil of a distillation column. Column 1, lines 34-38, of Ciborowski. As a result of this compression, the heat of condensation of the vapors can be used to evaporate the liquid being distilled. Column 1, lines 38-40, of

Ciborowski. However, a disadvantage of this process is that steam is also condensed with the vapors of the distilled liquid, the separation of which involves additional steps and the loss of distilled substance in the water removed from the system. Column 1, lines 40-46, of Ciborowski. The process of Ciborowski does not have this disadvantage and, thus, represents an improvement over the prior art process discussed therein. Ciborowski teaches that the essence of its process involves compressing the vapors of the distilled substance by means of an injector fed by vapors of the same substance (rather than steam), after which these compressed vapors are subsequently condensed in the heating coil of the distilling column. Column 1, lines 48-53, of Ciborowski. By doing this, the Ciborowski process eliminates any need to separate the condensate obtained by liquefaction of the vapors, making it possible to avoid losses of product associated with the prior art process. Column 1, lines 53-56, of Ciborowski.

The Examiner concludes in the Answer that the intended purpose of Ciborowski process is fulfilled by simply substituting the Luebke column for the Ciborowski apparatus since “cyclohexane and water vapor of Ciborowski would not be liquefied in the apparatus of Luebke” and, thus, the separation of any condensed liquids presumably would be unnecessary. However, this conclusion can only be arrived at by taking the arguments in Appellants’ Brief and the teaching of Ciborowski out of context. The intended purpose of the Ciborowski process is not to simply eliminate the need to separate condensate obtained by liquefaction of vapors so as to avoid product loss associated with such separation, but to eliminate this need in processes that involve condensing compressed vapors in the heating coil of a distilling column in order to use the heat of condensation of such compressed vapors to evaporate liquid being distilled in the column (*i.e.*, the principle of operation of the Ciborowski process and apparatus). Substituting the Ciborowski apparatus with the Luebke column eliminates this principle of operation. As such, Appellants maintain their position that the skilled artisan would have no motivation to substitute the specialized apparatus of Ciborowski with the reactor column of Luebke, since such a substitution would render the Ciborowski process unsatisfactory for its intended purpose by virtue of eliminating its principle of operation.

In view of the arguments set forth above and in Appellants' Brief on Appeal, Appellants submit that all claims on appeal patentably distinguish over the prior art of record, either alone or in combination. Accordingly, Appellants respectfully request that the Honorable Board reverse the Examiner and find for Appellants in this appeal.

Appellants believe no fees are due with this reply brief. However, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 12810-00027-US, from which the undersigned is authorized to draw.

Dated: July 27, 2009

Respectfully submitted,

Electronic signature: /Eamonn P. Morrison/

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